

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 13

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte MARIAN MAZURKIEWICZ

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Appeal No. 1995-4525  
Application No. 08/157,406<sup>1</sup>

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ON BRIEF

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Before WINTERS, WILLIAM F. SMITH and LORIN, Administrative Patent Judges.

WINTERS, Administrative Patent Judge.

DECISION ON APPEAL

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<sup>1</sup> Application for patent filed November 26, 1993.

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This appeal was taken from the examiner's decision  
rejecting claims 1 through 7, which are all of the claims in  
the application.

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Claim 3 is representative:

3. A method of introducing a biological substance into living target cells, the method comprising providing the biologic substance in a liquid solution or suspension, and dispersing this liquid into microdroplets of sufficient size to penetrate the target cells without destroying the target cells, and propelling these microdroplets toward the target cells with sufficient kinetic energy to penetrate the target cells.

The references relied on by the examiner are:

Sanford et al. (Sanford)	5,036,006	Jul. 30, 1991
Miller, Jr. et al. (Miller)	5,141,131	Aug. 25, 1992
Curtis	5,152,458	Oct. 6, 1992
Mets	5,240,842	Aug. 31, 1993 (filed Jun. 19, 1992)

The issues presented for review are: (1) whether the examiner erred in rejecting claims 1 through 3 and 5 under 35 U.S.C. § 102 as anticipated by Mets; (2) whether the examiner erred in rejecting claims 1 through 3 under 35 U.S.C. § 102 as anticipated by Miller; (3) whether the examiner erred in rejecting claims 1 through 7 under 35 U.S.C. § 103 as unpatentable over the combined disclosures of Mets, Sanford, and Curtis; and (4) whether the examiner erred in rejecting claims 1 through 7 under 35 U.S.C. § 103 as unpatentable over the combined disclosures of Miller, Sanford, and Curtis.

On consideration of the record, we shall sustain rejections (1) and (2). We also sustain rejection (3), to the

extent that it applies to claims 1 through 3 and 5. We do not, however, sustain rejection (3), to the extent that it applies to claims 4, 6, and 7. We shall sustain rejection (4), to the extent that it applies to claims 1 through 3. We shall not, however, sustain rejection (4) to the extent that it applies to claims 4 through 7.

#### DISCUSSION

We first consider the rejection of claims 1 through 3 and 5 under 35 U.S.C. § 102 as anticipated by Mets. In addressing this rejection in the Appeal Brief, pages 8 and 9, appellant does not explain with a reasonable degree of specificity why any claim or claims are believed to be separately patentable. Accordingly, for the purposes of this appeal, we shall treat claims 1, 2, and 5 as standing or falling together with representative claim 3.

Appellant does not controvert the examiner's finding that Mets discloses a method of introducing a biological substance into living target cells by (1) providing the biological substance in a liquid solution or suspension, (2) dispersing this liquid into microdroplets of sufficient size to penetrate the target cells without destroying the target cells, and (3)

propelling these microdroplets toward the target cells with sufficient kinetic energy to penetrate the target cells. According to appellant, the method disclosed by Mets differs from the method of claim 3 because the former method is "a two[-]step process of forming microdroplets and subsequently accelerating these pre-formed microdroplets toward target cells" whereas the latter method "simultaneously forms and accelerates microdroplets toward target cells." See the Appeal Brief, page 8. Appellant argues that the method disclosed by Mets is a "two step" method compared with the "single step" method recited in claim 3. The argument lacks merit.

During patent examination, the pending claims must be interpreted as broadly as their terms reasonably allow. In re Zletz, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989). Here, we can find no limitation in claim 3 serving to restrict appellant's method to a single step, i.e., to a one-step process where the microdroplets are simultaneously formed and accelerated. Rather, claim 3 "reads on" a two-step process of (1) dispersing the liquid containing a biological substance into microdroplets, and (2) propelling the

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microdroplets toward the target cells with sufficient kinetic energy to penetrate the target cells. In other words, appellant's argument for patentability is based on a limitation not found in claim 3.

The rejection of claims 1 through 3 and 5 under 35 U.S.C. § 102 as anticipated by Mets is affirmed.

We next consider the rejection of claims 1 through 3 under 35 U.S.C. § 102 as anticipated by Miller. In the Appeal Brief, page 4, appellant states that "claims 1-3 stand together." Accordingly, for the purposes of this appeal, we shall treat claims 1 and 2 as standing or falling together with representative claim 3.

The issue here is similar to the issue presented in the § 102 rejection over Mets. Again, appellant does not controvert the examiner's finding that Miller discloses a method of introducing a biological substance into living target cells by (1) providing the biological substance in a liquid solution or suspension, (2) dispersing this liquid into microdroplets of sufficient size to penetrate the target cells without destroying the target cells, and (3) propelling these microdroplets toward the target cells with sufficient kinetic

energy to penetrate the target cells. According to appellant, the method disclosed by Miller differs from the method of claim 3 because Miller "discloses a two-step process of forming microdroplets and subsequently accelerating those pre-formed microdroplets toward target cells with air pressure" whereas "applicant's method forms drops directed toward target cells in one step." See the Appeal Brief, page 9. Appellant argues that the method disclosed by Miller is a "two-step" method compared with the "single-step" method recited in claim 3. The argument lacks merit.

During patent examination, the pending claims must be interpreted as broadly as their terms reasonably allow. In re Zletz, 893 F.2d at 321, 13 USPQ2d at 1322. Here, we can find no limitation in claim 3 serving to restrict appellant's method to a single step, i.e., to a one-step process where the microdroplets are simultaneously formed and accelerated. Rather, claim 3 "reads on" a two-step process of (1) dispersing the liquid containing a biological substance into microdroplets, and (2) propelling these microdroplets toward the target cells with sufficient kinetic energy to penetrate

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the target cells. In other words, appellant's argument for patentability is based on a limitation not found in claim 3.

The rejection of claims 1 through 3 under 35 U.S.C. § 102 as anticipated by Miller is affirmed.

Respecting the rejection of claims 1 through 7 under 35 U.S.C. § 103 as unpatentable over the combined disclosures of Mets, Sanford, and Curtis, we affirm this rejection to the extent that it has been applied to claims 1 through 3 and 5. This result follows because lack of novelty is the epitome of obviousness, In re May, 574 F.2d 1082, 1089, 197 USPQ 601, 607 (CCPA 1978), and, for the reasons previously discussed, claims 1 through 3 and 5 are anticipated by Mets within the meaning of 35 U.S.C. § 102.

We reverse this rejection to the extent that it has been applied to claims 4, 6, and 7. For the reasons succinctly stated in the Appeal Brief, the examiner's combination of Mets, Sanford, and Curtis, insofar as it applies to claims 4, 6, and 7, relies on the impermissible use of hindsight.

The rejection of claims 1 through 7 under 35 U.S.C. § 103 as unpatentable over the combined disclosures of Mets, Sanford, and Curtis is affirmed with respect to claims 1



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through 3 and 5 and reversed with respect to claims 4, 6, and 7.

Respecting the rejection of claims 1 through 7 under 35 U.S.C. § 103 as unpatentable over the combined disclosures of Miller, Sanford, and Curtis, we affirm this rejection to the extent that it has been applied to claims 1 through 3. This result follows because lack of novelty is the epitome of obviousness, In re May, 574 F.2d at 1089, 197 USPQ at 607, and, for the reasons previously discussed, claims 1 through 3 are anticipated by Miller within the meaning of 35 U.S.C. § 102.

We reverse this rejection to the extent that it has been applied to claims 4 through 7. For the reasons succinctly stated in the Appeal Brief, the examiner's combination of Miller, Sanford, and Curtis, insofar as it applies to claims 4 through 7, relies on the impermissible use of hindsight.

The rejection of claims 1 through 7 under 35 U.S.C. § 103 as unpatentable over the combined disclosures of Miller, Sanford, and Curtis is affirmed with respect to claims 1 through 3 and reversed with respect to claims 4 through 7.

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In conclusion, the examiner's decision rejecting claims 1 through 3 and 5 is affirmed. The examiner's decision rejecting claims 4, 6, and 7 is reversed. Accordingly, the examiner's decision is affirmed-in-part.

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No time period for taking any subsequent action in  
connection with this appeal may be extended under  
37 CFR § 1.136(a).

AFFIRMED-IN-PART

SHERMAN D. WINTERS	)	
Administrative Patent Judge	)	
	)	
	)	
	)	
	)	
WILLIAM F. SMITH	)	BOARD OF PATENT
Administrative Patent Judge	)	APPEALS AND
	)	INTERFERENCES
	)	
	)	
	)	
HUBERT C. LORIN	)	
Administrative Patent Judge	)	

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